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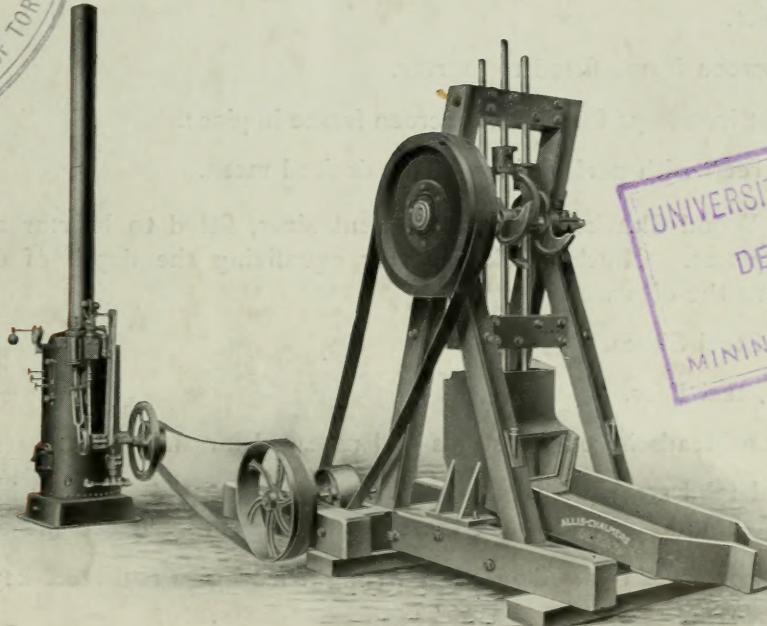
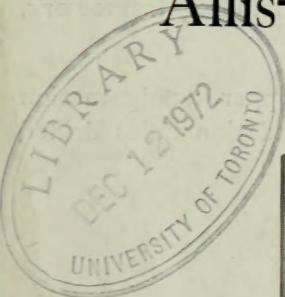
Allis-Chalmers Manufacturing Company

Bulletin No. 1433

Mining Machinery Department

August, 1919

Allis-Chalmers Prospecting Mill for Free Gold Ores



Consisting of a Three-Stamp Battery Complete with all Framework
and Equipped with Power.

Allis-Chalmers Prospecting Mill, for Free Gold Ores

The prospecting mill illustrated on the title page has been designed to meet the demand for a light, compact plant, capable of being easily and quickly taken apart, transported and erected where desired; the mill can be made sectional for mule-back transportation at a slight additional cost.

We reserve the right to change details of engine and boiler construction, also other details, always keeping efficiency and construction equal to the best.

MACHINERY:

STAMPS:

- 1 Three-Stamp Mill, 250 pounds each stamp, of improved design, arranged to be operated in one battery by belt from stamp countershaft, including framework, bolts and ironwork complete, as per following details:
 - 1 High Mortar, weight about 1,000 pounds, arranged for copper amalgamation plates in front and back, screen frame seat planed and foundation holes drilled to templet.
 - 1 Wood screen frame fitted to mortar.
 - 2 Wrought iron keys for holding screen frame in place.
 - 1 Steel Screen with perforations of the desired mesh.
 - 1 Set (3) Wood Chuck Blocks of different sizes, fitted to Mortar and faced with copper plates. Chuck blocks are for equalizing the depth of discharge from Mortar as the dies wear down.
 - 3 Forged Steel Shoes.
 - 3 Forged Steel Dies.
 - 3 Cast Iron Heads bored for stems and recessed for shoe neck.
 - 3 Stems of mild steel, with both ends tapered and fitted to head; both ends being tapered, should one end break the stem can be reversed and the other end used.
 - 3 Tappets, of special cast iron, with wrought iron gibbs and steel keys, all fitted to place.
 - 3 Double Cams, of special cast iron, bored and fitted to cam shaft with steel keys, all properly marked to place to give the required order of drop.
 - 1 Heavy hammered iron Cam Shaft, turned full length and keyseated for pulley and cams.
 - 2 Cast Iron Safety Set Collars with steel Set Screws, fitted to cam shaft.

M I N I N G M A C H I N E R Y D E P A R T M E N T

- 2 Heavy Corner Cam Shaft Boxes, babbitted and bored, and furnished with bolts and caps.
- 1 Cast Iron Cam Shaft Pulley, 36 x 7 inches.
- 1 Jack Shaft.
- 2 Jack Shaft Boxes.
- 3 Iron Sockets for wood levers, lined with leather.
- 3 Wood levers or Finger Pieces for holding up stamps, fitted to sockets.
- 1 Complete set of Wood Guides properly fitted to stems, with all bolts, nuts and washers.
- 1 Sheet of $\frac{1}{4}$ -inch Rubber for mortar to rest upon.
- All Bolts, Rods, Nuts and Washers for 3 Stamps frame work, complete, including all holding down bolts and washers for mortar.
- 1 Battery Frame complete, with Table for Copper Plate to rest upon.

WATER PIPES:

- 1 Complete set of Water Pipes for 3 Stamps proper, with valves and fittings ready for connection with main supply pipe, also rubber hose for washing copper plates in front of mill.

COPPER PLATES:

- 1 Copper Plate, 48 x $23\frac{1}{4}$ x $\frac{1}{8}$ inches, for Table.
- 1 Copper Plate, $21\frac{1}{2}$ x 8 x 3-16 inches, for back of Mortar.
- 3 Copper Plates (one each $3\frac{1}{4}$ in., $4\frac{1}{4}$ in., and $5\frac{1}{4}$ in. x $19\frac{3}{4}$ in.) for chuck blocks.

All the above Copper to be of the best quality Lake Superior, without flaws, and ELECTRO-PLATED WITH ONE OUNCE SILVER per square foot.

SHAFTING, PULLEYS AND BELTING:

- 1 Battery Countershaft, 2 3-16 in. diam. by 2 ft. 7 in. with all boxes, bolts, etc.
- 1 30 x $6\frac{1}{2}$ in. pulley for receiving belt from engine.
- 1 Pulley 18 x 7 in. to drive cam shaft.
- 24 Feet of 6-in. by 4-ply Belting to drive cam shaft.
- 50 Feet of 6-in. by 4-ply Belting to drive battery line shaft from engine pulley.

ALLIS-CHALMERS MANUFACTURING COMPANY

POWER:

The power, which is usually furnished, and which is of ample capacity for driving this mill, consists of 1 Three-Horse-power combined Vertical Engine and Boiler. This type is selected on account of its compactness and facility for transportation and erection.

ENGINE:

The Engine Frame is one solid casting of best material with main bearings and guides all in one piece. The upper end is accurately faced in lathe, for attaching Cylinder. By this construction it is impossible for working parts of engine to get out of line or change relations with each other. The frame is fastened to Saddles, which are attached separately to the boiler; thus avoiding any distortion of frame due to expansion and contraction.

The Crosshead, Piston and Connecting Rods, Crank Shaft and all Pins are made of steel. Engine is supplied with Throttle Valve, Governor, all Pipe Connection to boiler, and full complement of Oilers.

BOILER:

The Boiler is made entirely of Steel, with best quality of American lap-welded tubes in the most substantial manner. Boiler is completely supplied with fittings, including Iron Base with Ash Pit Door, Grate Bars, Safety Valve, Steam Gauge, Glass Water Gauge, Gauge Cocks, Blow-off Valve, necessary Pipes, Valves and Fittings and 10 feet of Stack.

It is understood that the machinery described above is to be complete in itself.

We will furnish all necessary drawings describing the machinery and its erection; these drawings to be included in the contract price.

The machinery is to be properly loaded f. o. b. cars Milwaukee, Wis., and all parts in any way liable to damage are to be properly crated or boxed.